

WHAT IS CLAIMED IS:

1. A piston ring for internal combustion engines comprising a coating film comprising a heat-resistant material and a solid lubricant dispersed therein on at least one side surface, said heat-resistant material comprising  
5 at least one of a polyamideimide-silicon dioxide hybrid material and a polyimide-silicon dioxide hybrid material.
2. The piston ring according to claim 1, wherein said solid lubricant comprises an inorganic compound, an inorganic simple substance or a fluororesin, and has an average particle size of 0.1  $\mu\text{m}$  to 20  $\mu\text{m}$ .
- 10 3. The piston ring according to claim 2, wherein said solid lubricant comprises at least one selected from the group consisting of molybdenum disulfide, tungsten disulfide, boron nitride, graphite, polytetrafluoroethylene resins and tetrafluoroethylene-perfluoroalkyl vinyl ether copolymer resins.
- 15 4. The piston ring according to any one of claims 1 to 3, wherein the content of said solid lubricant in the entire coating is 5 to 80% by mass.
5. The piston ring according to any one of claims 1 to 4, wherein said piston ring comprises a nitrided layer formed on a surface of a substrate thereof, said nitrided layer having a thickness of 3  $\mu\text{m}$  to 120  $\mu\text{m}$ .